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MINERAL INDUSTRY SURVEYS

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IRON AND STEEL SCRAP IN FEBRUARY 1997

Estimated consumption of iron and steel scrap on a daily average basis in February 1997 was up 6% compared with that in January 1997, according to the U.S. Geological Survey. Compared with January 1997 data, daily average production rose 6%, net receipts rose 12%, and stocks at the end of the month fell slightly. These observations are based upon responses from 71% of the companies surveyed that manufacture pig iron and semi-finished steel products, which represent 56% of the total scrap consumption in those sectors, and estimates for non-respondents of this survey.

On a daily average basis, pig iron production was up 9% and consumption was up 6% from that in January 1997. Stocks of pig iron at month's end fell 3% compared with those at the end of January 1997.

Exports of ferrous scrap were not available at time of publication.

Table 7 shows that New York, NY, was the leading customs district for tonnage of exports in January 1997, accounting for 20% of total exports, followed by Boston, MA, with 14%, and Los Angeles, CA, with 14%.

Table 10 reveals that Detroit, MI, was the leading customs district for tonnage of imports in January 1997, accounting for

43% of the total imports, followed by Seattle, WA, with 16% and Buffalo, NY, with 14%.

According to the American Iron and Steel Institute (AISI), domestic raw steel production in February 1997 amounted to 7,500,000 metric tons, down 5% from 7,930,000 metric tons in January 1997, and down slightly from 7,660,000 metric tons in February 1996. Year-to-date production through February 1997 was 15,400,000 metric tons, down slightly compared with 15,800,000 metric tons for the same period 1 year ago. The electric furnace portion of raw steel production for February 1997 was 43%, unchanged from that in January 1997, and up slightly from that in February 1996.

According to the AISI, raw steel capability utilization in February 1997 was 89%, up 3% from that in January 1997, and down 4% from that in February 1996. Continuous cast steel production in the United States accounted for 94% of total raw steel production in February 1997, and was unchanged from that in January 1997, while up slightly from that in February 1996. Through February, continuous cast steel production represented 94% of total steel production in 1997 compared with 93% in 1996.

TABLE 1 IRON AND STEEL SCRAP, PIG IRON, AND DIRECT-REDUCED IRON STATISTICS 1/ FOR STEEL PRODUCERS 2/

(Thousand metric tons)

		February 1997			Year to date			
		Electric			Electric			
	Integrated	furnace	Total for	Integrated	furnace	Total for		
	steel	steel	steel	steel	steel	steel		
	producers 3/	producers 4/	producers	producers 3/	producers 4/	producers		
Scrap:	_							
Receipts from dealers and other sources	_ 680	2,600	3,200	1,400	5,100	6,500		
Receipts from other own company plants	_ W	W	190	W	W	370		
Production recirculating scrap	710	400	1,100	1,500	820	2,300		
Production obsolete scrap	10	2	12	20	5	25		
Consumption (by type of furnace):	_							
Blast furnace	140		140	280		280		
Basic oxygen process	W	W	1,300	W	W	2,600		
Electric furnace	W	W	3,100	W	W	6,300		
Other (including air furnace) 5/	(6/)		(6/)	(6/)		(6/)		
Total consumption	1,400	3,100	4,500	2,900	6,300	9,200		
Shipments	W	W	180	W	W	370		
Stocks end of month	2,000	2,400	4,400	XX	XX	XX		
Pig iron (includes hot metal):	=							
Receipts	W	W	390	W	W	880		
Production	4,000		4,000	8,100		8,100		
Consumption (by type of furnace):								
Basic oxygen process	W	W	4,000	W	W	8,100		
Direct castings 7/	(8/)		(8/)	(8/)		(8/)		
Electric furnace	W	W	130	W	W	270		
Total consumption	4,000	130	4,100	8,100	270	8,400		
Shipments	(9/)		(9/)	(9/)		(9/)		
Stocks end of month	W	W	490	XX	XX	XX		
Direct-reduced iron: 10/	-							
Receipts	40	29	69	W	W	140		
Consumption (by type of furnace):	_							
Blast furnace	- 86		86	180		180		
Basic oxygen process	(6/)		(6/)	(6/)		(6/)		
Electric furnace	- ` <u>-</u>	(9/)	(9/)		(9/)	(9/)		
Total consumption	86	(9/)	86	180	(9/)	180		
Shipments				(9/)		(9/)		
Stocks end of month	- W	W	240	XX	XX	XX		

W Withheld to avoid disclosing company proprietary data; included in "Total for steel producers" and/or "Total consumption." XX Not applicable.

- 3/ Includes data for electric furnaces operated by integrated steel producers.
- 4/ Includes minimill and specialty steel producers; includes data for other furnaces operated by these steel producers.
- 5/ Includes vacuum melting furnaces and miscellaneous uses.
- 6/ Withheld to avoid disclosing company proprietary data; included in "Consumption: Blast furnace."
- 7/ Includes ingot molds and stools.
- 8/ Withheld to avoid disclosing company proprietary data; included in "Consumption: Basic oxygen process."
- 9/ Withheld to avoid disclosing company proprietary data.
- 10/ Includes direct-reduced iron, hot-briquetted iron, and iron carbide. Domestic production data are included in "Receipts."

^{1/} Data are rounded to two significant digits; may not add to totals shown.

^{2/} Includes manufacturers of raw steel that also produce steel castings. February 1997 data are based on returns from 71% of monthly respondents, representing 56% of scrap consumption during this month, and estimates for non-respondents of this survey. Year to date data are based on returns from 73% of respondents, representing 61% of scrap consumption and estimates for non-respondents.

TABLE 2
RECEIPTS FROM OUTSIDE SOURCES, PRODUCTION, CONSUMPTION, AND STOCKS OF IRON AND STEEL SCRAP, BY GRADE, 1/ FOR STEEL PRODUCERS 2/

(Thousand metric tons)

		February 1997				Year to date	
	Receipts of scrap	Production of home			Receipts of scrap	Production of home	
	from brokers,	scrap (recirculating	Consumption of		from brokers,	scrap (recirculating	Consumption of
	dealers, and other	scrap resulting from	purchased and	Ending	dealers, and other	scrap resulting from	purchased and
Item	outside sources	current operations)	home scrap 3/	stocks	outside sources	current operations)	home scrap 3/
Carbon steel:							
Low-phosphorus plate and							
punchings	32	W	34	13	63	W	68
Cut structural and plate	280	55	350	340	590	110	700
No. 1 heavy melting steel	520	300	840	680	1,000	610	1,700
No. 2 heavy melting steel	390	32	420	400	790	69	890
No. 1 and electric furnace							
bundles	460	W	560	430	920	W	1,200
No. 2 and all other bundles	80	W	87	64	170	W	180
Electric furnace 1 foot and							
under (not bundles)	1	W	W	1	1	W	W
Railroad rails	8	W	11	8	17	W	23
Turnings and borings	180	5	200	100	340	10	380
Slag scrap	60	110	180	170	130	220	360
Shredded and fragmentized	510	W	640	420	1,000	W	1,300
No. 1 busheling	330	12	330	230	650	W	680
Steel cans (Post consumer)	27	W	34	W	55	W	67
All other carbon steel scrap	180	250	420	390	380	510	860
Stainless steel scrap	52	35	87	40	110	67	180
Alloy steel scrap	15	53	62	78	28	100	130
Ingot mold and stool scrap	(4/)	W	6	23	W	W	14
Machinery and cupola cast iron	W	W	W	4	12	W	W
Cast iron borings	18	W	17	W	36	W	35
Motor blocks	W		W	W	W		W
Other iron scrap	31	39	77	W	62	78	150
Other mixed scrap	62	44	120	W	110	96	230
Total	3,200	1,100	4,500	4,400	6,500	2,300	9,200

W Withheld to avoid disclosing company proprietary data; included in "Total."

^{1/} Data are rounded to two significant digits; may not add to totals shown.

^{2/} Includes manufacturers of raw steel that also produce steel castings.

^{3/} Includes recirculating scrap and home-generated obsolete scrap.

^{4/} Less than 1/2 unit.

TABLE 3 RECEIPTS FROM OUTSIDE SOURCES, PRODUCTION, AND CONSUMPTION OF IRON AND STEEL SCRAP, 1/ BY REGION AND STATE, FOR STEEL PRODUCERS 2/

(Thousand metric tons)

		February 1997		Year to date			
	Receipts of scrap	Production of home		Receipts of scrap	Production of home		
	from brokers,	scrap (recirculating	Consumption of	from brokers,	scrap (recirculating	Consumption of	
	dealers, and other	scrap resulting from	purchased and	dealers, and other	scrap resulting from	purchased and	
Region and State	outside sources	current operations)	home scrap 3/	outside sources	current operations)	home scrap 3/	
Mid-Atlantic and New England:		-					
New Jersey, New York	110	7	130	220	14	250	
Pennsylvania	330	200	520	650	410	1,100	
Total	440	210	640	870	420	1,300	
North Central:							
Illinois	310	76	410	610	170	830	
Indiana	270	360	620	540	720	1,300	
Iowa, Minnesota, Missouri,							
Nebraska, Wisconsin	230	19	200	440	36	410	
Michigan	180	59	220	360	120	450	
Ohio	440	140	600	890	280	1,200	
Total	1,400	650	2,000	2,800	1,300	4,200	
South Atlantic:							
Delaware, Maryland, Virginia,							
West Virginia	120	73	200	260	150	410	
Florida, Georgia, North							
Carolina, South Carolina	170	17	180	350	34	380	
Total	300	90	380	600	180	790	
South Central:							
Alabama, Kentucky,							
Mississippi, Tennessee	310	56	360	610	110	720	
Arkansas, Louisiana,							
Oklahoma, Texas	500	56	690	1,000	120	1,400	
Total	810	110	1,100	1,600	230	2,100	
Mountain and Pacific:							
Arizona, California, Colorado,							
Oregon, Utah, Washington	280	55	350	560	110	720	
Grand total	3,200	1,100	4,500	6,500	2,300	9,200	

^{1/} Data are rounded to two significant digits; may not add to totals shown.

^{2/} Includes manufacturers of raw steel that also produce steel castings.

^{3/} Includes recirculating scrap and home-generated obsolete scrap.

TABLE 4 RECEIPTS OF IRON AND STEEL SCRAP, 1/ BY REGION 2/ AND GRADE, FOR STEEL PRODUCERS 3/4/

(Thousand metric tons)

	February 1997				Year to date					
	Mid-Atlantic		•		Mountain	Mid-Atlantic				Mountain
	and	North	South	South	and	and	North	South	South	and
Item	New England	Central	Atlantic	Central	Pacific	New England	Central	Atlantic	Central	Pacific
Carbon steel:										
Low-phosphorus plate and										
punchings	16	14	W	W		34	26	W	W	
Cut structural and plate	38	110	55	54	W	80	230	120	120	W
No. 1 heavy melting steel	49	230	32	170	42	94	440	63	340	86
No. 2 heavy melting steel	21	130	34	140	60	45	270	68	280	120
No. 1 and electric furnace										
bundles	44	340	25	40	6	93	680	W	79	13
No. 2 and all other bundles	11	26	6	26	10	23	62	13	51	20
Electric furnace 1 foot and										
under (not bundles)		1					1			
Railroad rails	W	1		W	3	W	1		W	7
Turnings and borings	29	37	27	80	4	55	71	55	150	8
Slag scrap	9	28	W	10	1	18	64	W	18	2
Shredded and fragmentized	51	160	67	160	76	100	310	130	310	160
No. 1 busheling	75	140	21	78	11	140	280	42	W	24
Steel cans (Post consumer)	W	W	5	W	(5/)	W	W	10	W	1
All other carbon steel scrap	17	130	5	25	9	35	260	10	54	20
Stainless steel scrap	48	W				100	W			
Alloy steel scrap	10	4	(5/)	W		17	7	1	W	
Ingot mold and stool scrap	(5/)					1			W	
Machinery and cupola cast iron		W		W			W		W	
Cast iron borings	W	W		7		W	W		13	
Motor blocks	(5/)		W			(5/)		W		
Other iron scrap	7	W	W	6	1	13	W	W	13	1
Other mixed scrap	W	19	W	W	32	W	34	W	W	59
Total	440	1,400	300	810	280	870	2,800	600	1,600	560

W Withheld to avoid disclosing company proprietary data; included in "Total."

^{1/} Scrap received from brokers, dealers, and other outside sources.

^{2/} A breakout of the States within each region is provided in Table 3.

^{3/} Includes manufacturers of raw steel that also produce steel castings.

^{4/} Data are rounded to two significant digits; may not add to totals shown.

^{5/} Less than 1/2 unit.

${\it TABLE~5}$ CONSUMPTION OF IRON AND STEEL SCRAP 1/ BY REGION 2/ AND GRADE, FOR STEEL PRODUCERS 3/

(Thousand metric tons)

	February 1997				Year to date					
	Mid-Atlantic				Mountain	Mid-Atlantic				Mountain
	and	North	South	South	and	and	North	South	South	and
Item	New England	Central	Atlantic	Central	Pacific	New England	Central	Atlantic	Central	Pacific
Carbon steel:										
Low-phosphorus plate and										
punchings	17	15	W	W		35	29	W	W	
Cut structural and plate	47	110	87	80	W	100	230	170	150	W
No. 1 heavy melting steel	96	390	55	200	94	190	800	110	410	190
No. 2 heavy melting steel	25	140	33	160	55	57	300	73	330	120
No. 1 and electric furnace										
bundles	54	420	29	51	7	120	860	W	100	W
No. 2 and all other bundles	11	32	6	28	11	22	65	13	56	20
Electric furnace 1 foot and										
under (not bundles)		10		W			19		W	
Railroad rails	W	1		W	3	W	1		W	7
Turnings and borings	32	47	26	87	3	68	92	54	160	7
Slag scrap	20	110	21	26	1	42	220	42	53	3
Shredded and fragmentized	80	190	74	220	82	160	370	150	480	160
No. 1 busheling	72	140	23	88	12	140	280	48	W	24
Steel cans (Post consumer)	W	13	4	W	(4/)	W	26	8	W	1
All other carbon steel scrap	43	290	16	63	W	92	580	32	130	W
Stainless steel scrap	80	W				170	W			
Alloy steel scrap	17	42	(4/)	3		37	W	1	W	
Ingot mold and stool scrap	W	1		W	W	W	2		W	W
Machinery and cupola cast iron		W		W			W		W	
Cast iron borings	W	W		W		W	W		13	
Motor blocks	(4/)					(4/)		W		
Other iron scrap	17	41	W	12	W	33	84	W	22	W
Other mixed scrap	15	42	W	10	49	30	85	W	22	89
Total	640	2,000	380	1,100	350	1,300	4,200	790	2,100	720

W Withheld to avoid disclosing company proprietary data; included in "Total."

^{1/} Data are rounded to two significant digits; may not add to totals shown.

^{2/} A breakout of the States within each region is provided in Table 3.

^{3/} Includes manufacturers of raw steel that also produce steel castings.

^{4/} Less than 1/2 unit.

TABLE 6 U.S. EXPORTS 1/ OF IRON AND STEEL SCRAP 2/ BY REGION AND SELECTED CUSTOMS DISTRICT 3/

(Thousand metric tons and thousand dollars)

	January	1997
Region and customs district	Quantity	Value
Canadian-U.S. Border:		
Buffalo, NY	8	2,320
Detroit, MI	28	3,790
Duluth, MN	1	117
Pembina, ND	13	1,410
Other 4/	47	4,210
Total	97	11,800
East Coast:		
Boston, MA	97	11,300
Miami, FL	1	176
New York, NY	139	20,200
Norfolk, VA	1	455
Philadelphia, PA	16	1,660
Portland, ME	11	1,140
Other	2	863
Total	265	35,700
Gulf Coast & Mexican-U.S.		
Border (includes Caribbean territories):		
Houston-Galveston, TX	1	213
Laredo, TX	62	8,010
New Orleans, LA	7	5,090
Tampa, FL	27	4,580
Other	4	477
Total	101	18,400
West Coast:		
Honolulu, HI, and Anchorage, AK	21	2,630
Columbia-Snake	24	2,990
Los Angeles, CA	95	15,100
San Diego, CA	21	2,370
San Francisco, CA	35	6,160
Seattle, WA	33	4,170
Total	229	33,400
Grand total	692	99,400

^{1/}Re-export activity for January 1997 amounted to 173 metric tons valued at \$50,300.

Source: Bureau of the Census.

^{2/} Includes tinplate and terneplate; excludes used rails for rerolling and other uses and ships, boats and other vessels for scrapping. Export valuation is on a "free alongside ship" (f.a.s.) basis.

 $^{3/\,}Data$ are rounded to three significant digits; may not add to totals shown.

^{4/} Includes Code 70, which is for low-valued exports from the United States to Canada.

TABLE 7 U.S. EXPORTS OF IRON AND STEEL SCRAP AND OTHER FERROUS PRODUCTS BY GRADE 1/2/

(Thousand metric tons and thousand dollars)

	January	1997
Item	Quantity	Value
No. 1 heavy melting steel	143	16,400
No. 2 heavy melting steel	58	6,260
No. 1 bundles	(3/)	4
No. 2 bundles	20	1,910
Shredded steel scrap	223	29,400
Borings, shovelings and turnings	18	1,730
Cut plate and structural	55	6,840
Tinned iron or steel	4	1,410
Remelting scrap ingots	(3/)	27
Cast iron	53	5,250
Other iron and steel	38	4,630
Total carbon steel and cast iron	611	73,800
Stainless steel	23	16,600
Other alloy steel	58	8,940
Total stainless and alloy steel	81	25,500
Total carbon, stainless, alloy steel and		
cast iron	692	99,400
Ships, boats, and other vessels for		
breaking up (for scrapping)	(3/)	39
Used rails for rerolling and other uses	1	559
Total scrap exports	694	100,000
Exports of manufactured		
ferrous products:		
Pig iron < or = 0.5% phosphorus	2	358
Pig iron > 0.5% phosphorus	1	98
Alloy pig iron		
Total pig iron	2	455
Direct-reduced iron (DRI)		
Spongy iron products, not DRI	(3/)	134
Granules for abrasive cleaning and		
other uses	2	1,370
Powders of alloy steel	(3/)	1,320
Other ferrous powders	2	5,310
Total DRI, granules and powders	5	8,140
Grand total	701	109,000

^{1/} Export valuation is on a "free alongside ship" (f.a.s.) basis.

Source: Bureau of the Census.

^{2/} Data are rounded to three significant digits; may not add to totals shown.

^{3/} Less than 1/2 unit.

TABLE 8 U.S. IMPORTS FOR CONSUMPTION OF IRON AND STEEL SCRAP 1/2/ BY SELECTED COUNTRY

(Thousand metric tons and thousand dollars)

	January	1997
Country	Quantity	Value
Australia	18	222
Canada	129	16,100
China	(3/)	137
Japan	6	752
Mexico	7	1,860
Other	(3/)	221
Total	160	19,300

^{1/} Includes tinplate and terneplate; excludes used rails for rerolling and other uses and ships, boats and other vessels for scrapping. Import valuation is on a customs basis.

Source: Bureau of the Census.

TABLE 9 U.S. IMPORTS FOR CONSUMPTION OF IRON AND STEEL SCRAP 1/2/ BY SELECTED CUSTOMS DISTRICT

(Thousand metric tons and thousand dollars)

	January	1997
Customs district	Quantity	Value
Buffalo, NY	23	3,600
Cleveland, OH	15	1,480
Detroit, MI	68	8,680
El Paso, TX	3	384
Laredo, TX	3	1,110
New York, NY	18	222
Ogdensburg, NY	1	162
Pembina, ND	1	98
San Diego	1	440
Seattle, WA	26	2,560
Other	1	543
Total	160	19,300

^{1/} Includes tinplate and terneplate; excludes used rails for rerolling and other uses and ships, boats and other vessels for scrapping. Import valuation is on a customs basis.

Source: Bureau of the Census.

 $^{2/\,\}mathrm{Data}$ are rounded to three significant digits; may not add to totals shown.

^{3/} Less than 1/2 unit.

 $^{2/\}operatorname{Data}$ are rounded to three significant digits; may not add to totals shown.

TABLE 10 U.S. RAW STEEL PRODUCTION, RAW STEEL CAPABILITY UTILIZATION, AND CONTINUOUS CAST STEEL PRODUCTION

	Raw steel p		Raw steel		Continuous	Continuous cast steel	
	thousand me	etric tons 1/	utilization	i, percent	production	i, percent	
	•	Year		Year		Year	
Period	Monthly	to date	Monthly	to date	Monthly	to date	
1996:							
February	7,660	15,800	92.6%	92.5%	92.8%	93.0%	
March	8,290	24,100	93.8%	93.0%	93.1%	93.0%	
April	7,790	31,900	90.5%	92.5%	93.0%	93.0%	
May	7,980	40,000	89.7%	92.2%	93.0%	93.0%	
June	7,860	47,900	91.3%	92.0%	93.1%	93.0%	
July	7,790	55,800	86.6%	91.4%	93.5%	93.1%	
August	7,830	63,600	87.1%	90.8%	93.6%	93.2%	
September	7,630	71,200	87.7%	90.5%	93.2%	93.1%	
October	7,900	79,300	88.0%	90.4%	92.9%	93.1%	
November	7,510	86,800	86.5%	90.0%	93.6%	93.2%	
December	7,880	94,700	87.9%	89.9%	94.0%	93.2%	
1997							
January	7,930	7,930	85.3%	85.3%	94.0%	94.0%	
February	7,500	15,400	89.3%	85.8%	94.3%	94.2%	

^{1/} Data are rounded to three significant digits; may not add to totals shown.

Source: American Iron and Steel Institute.

TABLE 11 COMPOSITE PRICES FOR NO. 1 HEAVY MELTING STEEL SCRAP

	American Meta	al Market	Iron Ag	ge	
Period	\$/1t	\$/t	\$/lt	\$/t	
1996:					
March	135.64	133.50	133.92	131.80	
April	134.43	132.31	132.28	130.19	
May	138.42	136.23	136.00	133.85	
June	136.40	134.25	133.00	130.90	
July	132.33	130.24	129.05	127.00	
August	133.51	131.40	129.67	127.62	
September	136.23	134.08	130.33	128.21	
October	127.49	125.47	121.58	119.65	
November	115.14	113.32	108.67	106.95	
December	116.79	114.95	109.84	108.10	
Average through December	130.64	130.60	126.43	124.43	
1997:					
January	127.44	125.43	120.75	118.84	
February	134.04	131.92	127.50	125.49	
March	NA	NA	120.92	119.01	
Average through March	NA	NA	123.06	121.11	

NA Not available.